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# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 14, 1991

TO: Minerals File

FROM: Holland Shepherd, Senior Reclamation Specialist HLS

RE: Magna Tailings Pond Instability, Bingham Pit Mine, Kennecott Utah Copper, M/035/002, Salt Lake County, Utah

On or around July 15, 1991, the Division received a citizen's complaint regarding concerns over the possibility of instability associated with Kennecott's 6,000 acre Magna Tailings facility. The complaint originated from a Magna citizens group and was called in by Ms. Karen Silver of the Community Action Program (CAP).

On two other occasions, in letters addressing a series of issues (5-6-91 and 5-24-91), the Division asked Kennecott for stability information addressing the tailings pond. The Division had asked that stability analyses be provided on specified portions of the pond, the southeast end and the north side. The Division also asked that Kennecott provide plans for the new construction activities taking place on the tailings impoundment Spring of 91.

The Division received, on August 5, 1991, a letter from Kennecott addressing our concerns and supplied information regarding piezometer readings (water level) located at points along the face of the pond. However, stability values were not provided by the operator as we had previously requested.

Kennecott's August 5, letter indicated that the situation is being monitored closely by the State Engineer's office, and that the State Engineer's Office and Kennecott were working together to ensure continued stability of the tailings dike.

I later met with Mr. Richard Hall of the state Engineer's Office, regarding the question of the tailings pond's stability. He indicated to me that his office felt that the tailings pond met static stability requirements, and the operator had taken a series of steps over the last two to three years to ensure that static stability requirements were maintained. Mr. Hall indicated that static stability had in fact been enhanced by a series of vertical and horizontal drains that had recently been installed on the southeast

end of the facility.

While at the State Engineer's Office, I reviewed a study generated by Sergent, Haskins and Beckwith (a geotechnical consulting firm), performed in 1988. The study indicated that static safety factors were within safe limits, at the time of the study. The study recommended mitigative steps the operator should take to maintain stability as the size of the impoundment increased.

Because of the increasing height of the pond, the step back dike is reaching its limits of capacity and may have to be retired in the not to distant future.

Mr. Hall indicated that the construction work recently performed on the southeast side of the tailings facility was being done to maintain the stability of the pond as the height of the dike was increased.

jb
cc: Cindy Emmons, Kennecott
Bob Morgan, State Engineer
Karen Silver, CAP
Dianne R. Nielson
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Tony Gallegos
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